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| 7663 | 7590 | 11/25/2005 | EXAMINER | |
| STETINA BRUNDA GARRED & BRUCKER | | | DOUGHERTY, THOMAS M | |
| 75 ENTERPRISE, SUITE 250 | | | ART UNIT | |
| ALISO VIEJO, CA 92656 | | | PAPER NUMBER | |
| | | | 2834 | |

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--|---|--|
| Office Action Summary | Application No. 10/805,131 | Applicant(s) MAGNUSSEN ET AL. | |
| | Examiner Thomas M. Dougherty | Art Unit 2834 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-24 is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 10-20 and 25-29 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>804, 904</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8, 20, 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Beyrard (US 6,429,572). Beyrard shows (fig. 2) a drive system comprising at least one vibrating motor (1) having at least one vibration generator (3, 4) each as well as at least one resonator (16) each and a device (2) that is driven by the at least one motor (1), the resonator (16) having a contact area that cooperates with a surface of the device (2) to drive said device (2), at least one of the resonator (16) contact area and the device (2) surface having at least one of a surface texture or surface profile (6) configured to guide the device (2).

The vibrating generator (3, 4) is made of a piezoelectric material. See col. 2, line 52.

The contact area comprises an indentation or protrusion. Note that the rod 16 is a protrusion.

The device surface (6) driven by the contact area has a profile comprising an indentation or protrusion. Note that the rod (16) fits in the indentation of the rack (6).

The surface (6) driven by the contact area comprises a plurality of indentations or protrusions or several regions with differing friction coefficients, with each indentation,

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protrusion or region of differing friction coefficient being spaced apart in regular intervals with respect to each other.

The force of the generated motion is predetermined by the position of the driven device (2) or the angle of the transducer (3, 4) relative to the driven device (2) when the excitation to the motor (1) remains the same.

Beyrard shows (figs. 1-6) a drive system comprising at least one vibrating motor (1) having a vibration generator (3, 4) driving a resonator (16), the resonator (16) having a contacting area engaging a driven surface (6) of a driven element (2), one of the contacting area and driven surface being located on a protrusion extending into indentations formed in the other of the contacting area and driven surface an amount sufficient to guide the driven element (2) relative to the resonator (16).

The driven surface (6) comprises an indentation and the contacting surface comprises a protrusion (16 is a rod) with the protrusion having lateral sides contained within the indentation. See fig. 3 or 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beyrard (US 6,429,572). Given the invention of Beyrard as noted above, he does not show the

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device surface driven by the contact area having a profile comprising an indentation produced by wear. This however is a matter of choosing specific materials and specific operating methods. As the structural features of the invention of Beyrard meet those of the claims on which this claim depends, Beyrard is likewise capable of such wear. Note additionally that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Claims 10, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beyrard (US 6,429,572). Given the invention of Beyrard as noted above, he does not note the indentations or the protrusions having a respective depth or height of about .05 - 10 mm, a respective depth or height of about .5 - 3 mm, or a respective depth or height of 0.5 - 3 mm.

It would have been an obvious matter of design choice to make the device of Beyrard smaller so that it meets the above dimension requirements since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105, USPQ 237 (CCPA 1955).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beyrard (US 6,429,572) in view of Zumeris (US 5,877,579). Given the invention of Beyrard as noted above, he does not show the device comprising at least two motors that are arranged in the same orientation to drive the driven element in the same direction.

Zumeris shows (fig. 6) two motors that are arranged in the same orientation to drive the driven element (30) in the same direction.

Zumeris doesn't show a surface texture or surface profile configured to guide the device.

It would have been obvious to one having ordinary skill in the art to employ two motors as Zumeris shows, in the device of Beyrard at the time of his invention, in order to allow a heavier load to be driven.

Additionally, it would have been obvious to one having ordinary skill in the art to use two motors in the same direction in the device of Beyrard at the time of his invention since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beyrard (US 6,429,572) in view of Zumeris (US 5,877,579). Given the inventions of Beyrard and Zumeris as noted above, Beyrard shows the motors as being controllable individually, for example in figure 2. Zumeris teaches driving the motors in parallel in figures 6 and 9 for example. How the driven device moves, e.g. the number of directions is a method of driving the device which isn't further limiting to the claimed structure. Likewise, Beyrard and Zumeris do not disclose whether or not the motors are urged against the driven device with respective forces that differ from each other, or if the motors have different operating frequencies and amplitudes. These too are methods of driving the device. It has been held that a recitation with respect to the manner in

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which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham 2 USPQ2d 1647 (1987).

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beyrard (US 6,429,572). Given the invention of Beyrard as noted above, Beyrard does not show the driven surface with a protrusion and the contacting surface comprising an indentation. It would have been obvious to one having ordinary skill in the art at the time the invention was made to so design the protrusion on the driven surface and an indentation on the contacting surface since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167.

Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beyrard (US 6,429,572). Given the invention of Beyrard as noted above, Beyrard does not show curved surfaces which are capable of nesting so that the driven element is driven. Note that this is a change in the shape of the surfaces, absent an assertion of unexpected results, change to the arrangement does not make the invention patentably distinct. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Allowable Subject Matter

Claims 21-24 are allowed.

Claims 6, 7 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is an examiner's statement of reasons for allowance and indication of allowable claims: the prior art fails to show a drive system comprising a vibrating motor with a vibration generator and resonator which is used to move a device and has a contact area that cooperates with a surface of the device wherein either the contact area on the resonator or the surface area on the driven element comprises regions with differing friction coefficients.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining prior art cited reads on some aspects of the claimed invention.

Direct inquiry to Examiner Dougherty at (571) 272-2022.

tmd
tmd

November 22, 2005


TOM DOUGHERTY
PRIMARY EXAMINER